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Early action on climate change needed

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Claims by Professor Chris Field that climate change 'will be beyond anything' predicted has generated widespread interest across the media.

It has been clear for some time that greenhouse gas emissions have been accelerating at a rate higher than even the worst-case emissions scenarios used by the Intergovernmental Panel on Climate Change (IPCC) in the 2007 report. Overall global emissions continue to rise at a rate of 1% per year.

Research from the Met Office Hadley Centre has shown that by delaying action on carbon emissions there is a significant risk of larger increases in temperature over those from taking early action. This will lead to a significant risk of dangerous impacts to our environment, society and economy.

Professor Field singles out the tropical forests and the thawing of Arctic permafrost as particular areas of concern. Further research from the Met Office Hadley Centre has shown the important role that tropical forests play in the climate system. The Met Office has concluded that the historical rise in CO2 could have been 10% faster without the tropical forest.

Met Office scientists have claimed that new estimates of future deforestation in critical regions, such as the Amazon, are also much larger than those used by the Intergovernmental Panel on Climate Change. With no controls on deforestation, the area of forest lost could be five times greater than in the scenarios used by the IPCC. Even with effective governance the loss could be double.

Climate science explained

Notes:

- Professor Chris Field is director of the Carnegie Institution's Department of Global Ecology and was speaking ahead of the annual meeting of the American Association for the Advancement of Science (AAAS)